

polymer rails by supplying a mixture of an etching gas/ [and an] acid neutralizing gas of HF/NH₃ to form a water soluble material of sidewall polymer rails left behind on the Al/Cu metal line from the RIE process; and

c) deionized water rinse chamber means to remove [the] water soluble material [with deionized water].

15. (Thrice Amended) The integrated[ion] metal etch tool of claim 13 wherein said strip chamber means for supplying a water-only plasma conducts said water-only plasma at temperatures greater than 200°C to form a passivation layer on the Al/Cu metal line surface.

16. (Thrice Amended) In a metal etch tool for removing post-RIE polymer rails formed on a Al/Cu metal line of a semiconductor structure, the improvement comprising an integrated metal etch tool comprising therein:

(a) vacuum chamber means to provide a mixture of [an] etching gas/[and an] acid neutralizing gas to said structure to form a water soluble material of sidewall polymer rails left behind on Al/Cu metal line from the RIE process; and

(b) strip chamber means for removal of photo-resist from said structure by chemical downstream etching or plasma.

CORRECTED VERSION OF CLAIMS

13. (Thrice Amended) In a metal etch tool for removing post-RIE polymer rails formed on a Al/Cu metal line of a

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semiconductor structure, the improvement comprising an integrated metal etch tool comprising therein:

a) strip chamber means for water only plasma to strip photo-resist of a semiconductor composite structure subsequent to a RIE to limit thickness of sidewall polymer;

b) vacuum chamber means to chemically modify polymer rails by supplying a mixture of an etching gas/acid neutralizing gas of HF/NH₃ to form a water soluble material of sidewall polymer rails left behind on the Al/Cu metal line from the RIE process; and

c) deionized water and rinse chamber means to remove water soluble material.

E1
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315. (Thrice Amended) The integrated metal etch tool of claim 13 wherein said strip chamber means for supplying a water-only plasma conducts said water-only plasma at temperatures greater than 200°C ^{thruely forming} to form a passivation layer on the Al/Cu metal line surface.

E2
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16. (Thrice Amended) In a metal etch tool for removing post-RIE polymer rails formed on a Al/Cu metal line of a semiconductor structure, the improvement comprising an integrated metal etch tool comprising therein:

(a) vacuum chamber means to provide a mixture of [an] etching gas/acid neutralizing gas to said structure to form a water soluble material of sidewall polymer rails left behind on Al/Cu metal line from the RIE process; and